Amendments to the Claims

This list of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claim 1 (currently amended): A switch fabric network for routing packets, wherein each of said packets comprise packet field data, ~~for creating a packet encapsulating a protocol~~ comprising: a switch having a plurality of ports, wherein said switch is adapted to receive a packet on one of said plurality of ports, and based solely on said packet field data and the number of said ports, is adapted to transmit said packet on a second one of said plurality of ports. ~~, a protocol encapsulation interface identifier; packet field data; a packet header using said protocol encapsulation interface identifier and packet field data; and a first node adapted to create said packet header and to transmit said packet header to a second node~~.

Claim 2 (currently amended): A system of claim 1 wherein said packet field data ~~is comprised of~~ comprises ~~a bit count and~~ a turn pool~~;~~ .

Claim 3 (cancelled)

Claim 4 (currently amended): A system of claim 1 wherein said packet field data is comprised of a credit length, a bit count, a turn pool, an operation, a Path Identifier (PID) ~~PID~~ index, ~~an MTU~~, a Maximum Transmission Unit (MTU) and an Extended Unique Identifier (EUI) ~~EUI~~.

Claims 5-12 (cancelled)

Claim 13 (new): The system of claim 2 wherein said packet field data further comprises a bit count.

Claim 14 (new): A switch for routing a packet, wherein said packet comprises packet field data, comprising:

a plurality of ports;

means for receiving said packet on one of said ports;

means for determining the appropriate port on which to transmit said received packet, using only said packet field data and the number of said ports; and

means for transmitting said packet on said determined appropriate port.

Claim 15 (new): The switch of claim 14, wherein said packet field data comprises a turn pool and said determining means utilizes said turn pool to select said appropriate port.

Claim 16 (new): The switch of claim 15, wherein said packet field data further comprises a bit count and said determining means utilizes said bit count to select said appropriate port.

Claim 17 (new): The switch of claim 14, further comprising means to modify said packet field data prior to transmitting said packet.

Claim 18 (new): A method of routing a packet from a source to a destination within a fabric having at least one

switch, said switch having a plurality of ports, said method comprising:

encapsulating said packet with a header, wherein said header comprising packet field data;

transmitting said encapsulated packet from said source to said switch;

receiving said encapsulated packet by said switch on one of said ports;

determining an appropriate output port using said packet field data and the number of said ports; and

transmitting said encapsulated packet from said switch via said appropriate output port.

Claim 19 (new): The method of claim 18 further comprising modifying said packet field data prior to transmitting via said appropriate output port.

Claim 20 (new): The method of claim 18 whereby said packet field data comprises a turn pool.

Claim 21 (new): The method of claim 20 whereby said packet field data further comprises a bit count.

Claim 22 (new): The method of claim 19 whereby said packet field data comprises a turn pool.

Claim 23 (new): The method of claim 22 whereby said packet field data further comprises a bit count.

Claim 24 (new): The method of claim 18, wherein said fabric comprises a plurality of switches, and said method further comprises repeating said receiving, determining and

transmitting steps until said packet reaches said destination.

Claim 25 (new): The method of claim 21, further comprising using said turn pool and bit count of said packet received by said destination to create a second header, used by said destination, to encapsulate a second packet to be routed from said destination to said source.

Claim 26 (new): The method of claim 23, further comprising using said turn pool and bit count of said packet received by said destination to create a second header, used by said destination, to encapsulate a second packet to be routed from said destination to said source.